

Amendments to the Specification

Please add the following paragraph between the title and the first line of text as follows:

This is a Division of Application No. 09/959,855 filed November 9, 2001, which in turn is a National Stage of PCT/JP00/03016 filed May 11, 2000. The entire disclosure of the prior applications is hereby incorporated by reference herein in its entirety.

Please replace the paragraph beginning on page 70, line 18 to page 71, line 4, with the following rewritten paragraph:

A glass substrate having a diameter of 2.5 inches (6.5 cm) was prepared as the substrate 1. A CoO-SiO₂ film was formed as the inorganic compound thin film 2 on the substrate 1 by means of the ECR sputtering apparatus described above. A CoO-SiO₂ mixture (mixing ratio of CoO: SiO₂ = 3: 1) was used for a sputtering target (target 80 in Fig. 5), and Ar was used for a sputtering gas. The gas pressure of Ar was 0.3 mTorr. The introduced electric power of the microwave was 0.7 kW. In order to introduce the plasma excited by the microwave in a direction toward the target, an RF bias voltage of 500 W was applied to the target.

Please replace the paragraph beginning on page 92, line 23 to page 92, line 12, with the following rewritten paragraph:

The structure of the magnetic recording medium produced as described above was investigated by means of the X-ray diffraction method. An obtained result is shown in Fig. 9. The diffraction peak observed in the vicinity of $2\theta = 62.5^\circ$ corresponds to (220) of CoO of the crystal grain in the inorganic compound film. The peak observed in the vicinity of $2\theta = 73^\circ$ corresponds to (11.0) of Co of the magnetic film. The orientation of Co as described above is caused by the epitaxial growth from the crystal grains 12 in the inorganic compound film 2, and it is the result of reflection of the orientation thereof. When the inorganic compound thin film 2 was absent, then the (11.0) plane of Co was not observed, but (00.2) of

Co was observed. According to this fact, it is appreciated that the inorganic compound film 2 greatly contributes to the control of orientation of the magnetic film 3.

Please replace the paragraph beginning on page 100, lines 8-19, with the following rewritten paragraph:

An Hf film was formed as the first underlying layer 32 on the glass substrate 31 having a diameter of 2.5 inches (6.25 cm) by using the ECR sputtering apparatus shown in Fig. 5. Ar was used for the sputtering gas, and the gas pressure during the sputtering was 0.3 mTorr (about 39.9 mPa). The introduced microwave electric power was 1 kW. In order to introduce the plasma excited by the microwave in the direction toward the target, a DC bias voltage of 500 V was applied to the target. The Hf film having a film thickness of 3 nm was formed by means of the ECR sputtering.

Please replace the paragraph beginning on page 116, lines 6-19, with the following rewritten paragraph:

The MgO-SiO₂ film was formed as the underlying base film 22 on the glass substrate 21 having a diameter of 2.5 inches (6.5 cm) by means of the ECR sputtering method by using the apparatus shown in Fig. 5. A material, which was obtained by mixing MgO and SiO₂ in a ratio of 3:1 followed by being sintered to have a ring-shaped configuration, was used for the target. Ar was used for the sputtering gas. The gas pressure during the sputtering was 0.3 mTorr (about 39.9 mPa), and the introduced microwave electric power was 1 kW. An RF bias voltage of 500 W was applied to the target in order that the plasma excited by the microwave was introduced in the direction toward the target. The MgO-SiO₂ film was formed to have a film thickness of 20 nm by means of the ECR sputtering.

Please replace the paragraph beginning on page 127, lines 17-24, with the following rewritten paragraph:

A CoNbZr layer having an amorphous structure was formed as a film having a film thickness of 100 nm as the in-plane magnetizable layer 42 on the glass substrate 41 having a

diameter of 2.5 inches (6.5 cm). When the in-plane magnetizable layer 42 is formed, the DC sputtering method was used. The substrate 41 was not heated during the sputtering. A CoNbZr alloy was used for the target, and Ar gas was used for the electric discharge gas.

Please replace the paragraph beginning on page 134, line 24 to page 135, line 19, with the following rewritten paragraph:

A CoO-SiO₂ film 2 was formed as the underlying layer on the glass substrate 1 having a circular shape with a diameter of 2.5 inches (6.35 cm) by means of the ECR sputtering method. A sintered mixture containing CoO and SiO₂ in a ratio of 2:1 was used for the target, and Ar containing 1 % hydrogen (reducing atmosphere) was used for the sputtering gas. The reason why the underlying layer 2 was formed in the reducing atmosphere is that a part of CoO for constructing the underlying layer 2 is reduced to deposit Co so that cobalt oxide has the soft magnetization. The pressure of the sputtering gas was 0.5 mTorr (about 66.5 mPa), and the introduced microwave electric power was 1 kW. An RF bias to read power of 500 W was applied between the target and the substrate in order that the plasma excited by the resonance absorption was introduced in the direction toward the target, and the particles driven out from the target by the plasma were introduced in the direction toward the substrate. The CoO-SiO₂ film 2 as the underlying layer was formed to have a film thickness of 20 nm by means of the ECR sputtering method as described above.